



## DECLARATION

JOINT INVENTOR  
ORIGINAL

As a below named inventor, I hereby declare that: my residence, post office address, and citizenship are as stated below next to my name. I believe I am the original, first, and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **SIGNALING TECHNIQUES IN CHANNELS WITH ASYMMETRIC POWERS AND CAPACITIES** as described in the specification of patent application Serial No. 09/510,966, filed February 21, 2000.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above; that I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to this application; that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representative or assigns more than twelve months prior to this application; and that I acknowledge the duty to disclose information of which I am aware which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations § 1.56(a). Such information is material when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant has taken or may take in:
  - (I) opposing an argument of unpatentability relied on by the Office, or
  - (II) asserting an argument of patentability.

I hereby claim foreign priority benefits under Title 35, United States Code § 119 of any foreign application(s) for patent or inventor's certificates listed below and have also identified below any foreign application(s) having a filing date before that of the application(s) on which priority is claimed:

| COUNTRY | APPLICATION NUMBER | DATE OF FILING | PRIORITY CLAIMED<br>UNDER 35 USC 119 |
|---------|--------------------|----------------|--------------------------------------|
|         |                    |                |                                      |

I hereby claim the benefit under Title 35 United States Code § 120 and/or § 119(e) of any United States application(s) listed below and, insofar as any subject matter of any claim of this application is not disclosed in the prior United States Application, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations § 1.56(a) which occurred between the filing date of the prior application and the national PCT International filing date of this application:

Provisional Patent Application Serial No. 60/122,077

Filed: March 1, 1999

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

|  |  |                              |
|--|--|------------------------------|
| FULL NAME OF FIRST INVENTOR<br><b>Rohit V. GAIKWAD</b>   | INVENTOR'S SIGNATURE<br><i>Rohit V. Gaikwad</i>    | DATE<br><b>18th JUNE '00</b> |
| RESIDENCE<br><b>1063 MORSE AVE., # 4-302,<br/>1424 Richmond Avenue, #1060, Houston, Texas, 77006</b> | <b>SUNNYVALE, CA 94089</b>                         | CITIZENSHIP<br><b>INDIA</b>  |
| POST OFFICE ADDRESS<br><b>SAME AS ABOVE</b>  |  |                              |
| FULL NAME OF SECOND JOINT INVENTOR<br><b>Richard G. BARANIUK</b>                                     | INVENTOR'S SIGNATURE<br><i>Richard G. Baraniuk</i> | DATE<br><b>19 June '00</b>   |
| RESIDENCE<br><b>1733 Wroxtton Court, Houston, Texas, 77005</b>                                       |  | CITIZENSHIP<br><b>CANADA</b> |
| POST OFFICE ADDRESS<br><b>SAME AS ABOVE</b>  |  |                              |

Attorney's Docket No. 1789-01910

PATENT

Applicants: Rohit V. GAIKWAD and Richard G. BARANIUK  
Serial No.: 09/510,966  
Filed: February 21, 2000  
Title: Signaling Techniques In Channels With Asymmetric Powers And Capacities

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR 1.9(f) and 1.27(c)) – NONPROFIT ORGANIZATION**

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name Of Nonprofit Organization: WM. MARSH RICE UNIVERSITY  
Address of Nonprofit Organization: 6100 Main Street, Houston, Texas, 77005-1892

**TYPE OF NONPROFIT ORGANIZATION**

- ☒ University or Other Institution of Higher Education  
☐ Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3))  
☐ Nonprofit Scientific or Educational Under Statute of State of the United States of America  
(Name of State)  
(Citation of Statute)  
☐ Would Qualify as Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3)), if Located in the United States of America  
(Name of State)  
(Citation of Statute)

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization, as defined in 37 CFR 1.9(e), for purposes of paying reduced fees to the United States Patent and Trademark Office under Section 41(a) and (b) of Title 35, United States Code, with regard to the invention described in

- ☐ the specification filed herewith, with title as listed above.  
☒ the application identified above.  
☐ the patent identified above.

I hereby declare that rights under contract or law have been conveyed to, and remain with, the nonprofit organization, with regard to the above identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights in the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern that would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

*\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).*

Each such person, concern or organization having any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.  
☐ Each such person, concern or organization is listed below.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

Name: \_\_\_\_\_

Address: \_\_\_\_\_

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION


I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name Of Person Signing: Daryl S. Boudreaux, Ph.D.

Title in Organization : Director, Office of Technology Transfer

Address of Person Signing: WM. MARSH RICE UNIVERSITY  
6100 Main Street, Houston, Texas 77005-1892

SIGNATURE:  Date: 4/17/00